

IN THE CLAIMS

1. (currently amended) A method for operating a gas turbine engine, said gas turbine engine comprising a nozzle including a plurality of chevrons coupled to the nozzle, said method comprising:

positioning a plurality of tubes azimuthally around an outer periphery of the nozzle;

coupling an upstream end of each of the plurality of tubes to a manifold;

coupling a downstream end of each of the plurality of tubes to the nozzle such that the plurality of tubes each externally extend away from the manifold,

channeling compressed air from the gas turbine engine to a noise suppression system that includes a the manifold and a the plurality of tubes ~~coupled to the manifold~~; and

selectively operating the noise suppression system such that air discharged from the noise suppression system enhances a streamwise vortex generated downstream from each respective chevron.

2. (original) A method in accordance with Claim 1 wherein selectively operating the noise suppression system further comprises selectively operating the noise suppression system such that air discharged from the noise suppression system facilitates reducing gas turbine noise generated during engine operation.

3. (previously presented) A method in accordance with Claim 1 wherein channeling compressed air from the gas turbine engine to a noise suppression system further comprises:

channeling compressed air from the gas turbine engine into the manifold; and

discharging the air from the manifold into the respective chevron flowpath through the plurality of tubes.

4. (original) A method in accordance with Claim 3 wherein the noise suppression system includes an actuation valve, wherein channeling compressed air from the gas turbine engine to a noise suppression system further comprises selectively operating the actuation valve to channel compressed air from the gas turbine engine to the manifold.

5. (previously presented) A method in accordance with Claim 3 the plurality of tubes includes at least a first tube and a second tube, wherein discharging air from the manifold further comprises orienting the first tube and the second tube such that air discharged from the first tube and the second tube generate a single vortex on both sides of each respective chevron.

6. (original) A method in accordance with Claim 3 wherein said discharging air from the manifold further comprises discharging compressed air from the manifold through the plurality of tubes into a core gas turbine engine nozzle chevron flowpath.

7. (original) A method in accordance with Claim 1 wherein said discharging air from the manifold further comprises discharging compressed air from the manifold through the plurality of tubes into a fan nozzle chevron flowpath.

8. (currently amended) An assembly for a gas turbine engine, said assembly comprising:

a gas turbine nozzle;

a plurality of chevrons coupled to said gas turbine nozzle; and

a noise suppression system coupled to said gas turbine nozzle, said noise suppression system comprising a manifold coupled to said gas turbine nozzle and a plurality of azimuthally arranged tubes each comprising an upstream end coupled to said manifold and a downstream end coupled to said gas turbine nozzle such that said plurality of tubes each extend away from said manifold, said noise suppression system is selectively operable to facilitate enhancing a streamwise vortex generated downstream from each respective chevron.

9. (previously presented) An assembly in accordance with Claim 8 wherein each of said plurality of tubes is selectively oriented to facilitate enhancing a vortex generated in said gas turbine nozzle chevron flowpath.

10. (original) An assembly in accordance with Claim 9 wherein said plurality of tubes comprises a plurality of tube pairs comprising:

a first tube that extends radially inward at an angle  $\beta$  with respect to a centerline axis;  
and

a second tube that extends radially inward at the angle  $\beta$  with respect to the centerline axis, said first tube oriented approximately parallel to said second tube.

11. (original) An assembly in accordance with Claim 9 wherein each of said plurality of tube pairs is selectively oriented to facilitate generating a streamwise vortex downstream from each respective chevron in a core gas turbine engine nozzle flowpath.

12. (original) An assembly in accordance with Claim 9 wherein each of said plurality of tube pairs is selectively oriented to facilitate generating a streamwise vortex downstream from each respective chevron in a fan nozzle flowpath.

13. (currently amended) An assembly in accordance with Claim 8 wherein said noise suppression system further ~~comprises:~~

~~a manifold coupled to said gas turbine nozzle; and~~

comprises exactly eight tube pairs coupled to said manifold, each said tube pair being selectively oriented to facilitate generating a streamwise vortex downstream from each respective chevron.

14. (original) An assembly in accordance with Claim 8 wherein said noise suppression system further comprises an actuation valve selectively operable to discharge

compressed air from said gas turbine engine to said noise suppression system, such that said noise suppression system is at least one of continuously operated or pulse operated.

15. (currently amended) A gas turbine engine comprising:

a core engine nozzle;

a fan nozzle;

a plurality of chevrons coupled to at least one of said core engine nozzle and said fan nozzle; and

a noise suppression system coupled to at least one of said core engine nozzle and said fan nozzle, said noise suppression system comprising a manifold coupled to ~~said gas turbine nozzle~~ at least one of said core engine nozzle and said fan nozzle and a plurality of tubes each comprising an upstream end coupled to said manifold and a downstream end coupled to said at least one of said core engine nozzle and said fan nozzle so that said plurality of tubes externally extend away from said manifold, said noise suppression system is selectively operable to facilitate enhancing a streamwise vortex generated downstream from each respective chevron.

16. (previously presented) A gas turbine in accordance with Claim 15 wherein each said tube pair is selectively oriented to facilitate enhancing a vortex generated downstream from each respective chevron.

17. (original) A gas turbine in accordance with Claim 16 wherein each said tube pair comprises:

a first tube that extends radially inward at an angle  $\beta$  with respect to a centerline axis; and

a second tube that extends radially inward at the angle  $\beta$  with respect to the centerline axis, said first tube oriented approximately parallel to said second tube.

18. (original) A gas turbine in accordance with Claim 16 wherein each said tube pair is selectively oriented to facilitate enhancing a vortex generated downstream from at least one of said core gas turbine engine nozzle chevron and said fan nozzle chevron.

19. (currently amended) A gas turbine in accordance with Claim 16 wherein said noise suppression system further ~~comprises:~~

~~a manifold coupled to said gas turbine nozzle; and~~

comprises exactly eight tube pairs coupled to said manifold, each said tube pair is selectively oriented to facilitate generating a vortex downstream from each respective chevron.

20. (original) A gas turbine in accordance with Claim 15 wherein said noise suppression system further comprises an actuation valve selectively operable to discharge air from said gas turbine engine into said noise suppression system.